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SUBJ: VISUAL GUIDANCE LIGHTING SYSTEMS STANDARD DRAWINGS (FY-76/77/78/79)
(REVISED)

- 1. PURPOSE, This order directs the use of the standard drawings listed in appendix 1 for the establishment of 4- and 6-box visual approach slope indicator (VASI) systems.
- 2. <u>DISTRIBUTION</u>. This order is distributed to branch level in Airway Facilities Service; to division level in Logistics, Systems Research and Development, and Air Traffic Services, to the Office of Flight Operations, and Office of the Associate Administrator for Airports in Washington headquarters; branch level in regional Airway Facilities, Airports, Flight Standards, and Air Traffic divisions (except AEU); and to the Director,-FAA Technical Center and the Aeronautical Center.
- 3. CANCELLATION. Order 6850.15B, Visual Guidance Lighting Systems Standard Drawings (FY-76/77/78), dated 8/3/79, is canceled.
- 4. BACKGROUND. Drawings D-6127-0A, D-6127-1A, D-6127-2B, D-6127-3B, D-6127-4B, D-6127-5, D-6127-6, D-6127-7, and D-6127-8 are issued to provide the proper installation of VASI equipment manufactured by Western Technical Associates under contract DOT-FA76WAI-647, types FA-9457A and FA-9458A; contract DOT-FA79WAI-043, type FA-9898 and FA-9899; Sepco Division of Connecticut International Corporation under contract DOT-FA76WA-3822, types FA-9457B and FA-9458B; and Disan Engineering Corporation under contract DOT-FA78WA-4154, types FA-9872 and FA-9873.
 - 5. EXPLANATION OF CHANGES. The standard drawings, series D-6127, have been revised to reflect the following design changes:
 - a. Revise wiring from the power and control unit to the lamp housing assemblies.
 - b. Reduce the amount of exposed concrete above the finished grade.
 - co Incorporate the **Disan** Engineering Corporation equipment into these standard drawings.
 - d. Incorporate remote radio control standard wiring diagram.

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6. APPLICATION, Drawing D-6127-1A shows typical site layouts for 4- and 6-box VASI systems. This drawing is to be used as a guide and checklist for information that is required on the project site plan drawings. Actual siting of the systems shall be in accordance with the latest edition of Order 6850.2, Visual Guidance Lighting Systems. Drawings D-6127-2B, D-6127-3B, and D-6127-4B have been developed as standard foundation, construction, and electrical installation drawings. The foundation design for the VASI unit and the supports for the power and control assembly are based on a minimum safe soil-bearing pressure of 3,000 pounds per square foot (psf). Depth of the foundation footing shall be a minimum of 3 feet-0 inches, or two feet below local frost depth, whichever is greater. The frost depth shall be noted on a project site plan, Where the actual site soil-bearing strength is less than 3.000 psf and/or the local frost depth is greater than 6 feet-0 inches, the foundation and support designs, as shown on these drawings, shall be modified as required to suit actual site conditions. The power and control assembly wiring diagrams are shown on D-6127-5, D-6127-6, and D-6127-7. The remote radio control wiring diagram is shown on D-6127-8. Power source configurations are site-determined; therefore, each service extension shall be set forth on the site layout and an appropriate service extension detailed drawing developed. These drawings shall be used for all future establishment, relocation, and current construction projects for FY-76-provided equipment; however, the subject drawing shall not require the modification of existing equipment installations and/or current installations under contract. Inquiries or comments regarding these drawings shall be directed to the Chief, Environmental Systems Division, AAF-500.

- 7. FLIGHT STANDARDS INTERFACE, The VASI system need not be flight inspected when the VASI boxes are aligned using a Walker bar. A Walker bar is provided with the VASI equipment and is identified as type FA-9459A,
- * FA-9459B, FA-9874, or FA-9900. A commissioning flight check is required on * those systems with an obstacle clearance waiver and systems with usable reduced limits because of obstacles, even though the boxes are aligned with a Walker bar,
 - 8. <u>DEVIATIONS FROM STANDARD.</u> No deviation from the standard is authorized without prior approval of the Director, Airway Facilities Service. Regional site adaptation to accommodate terrain, utility connections, access roads, and other similar site-unique details is authorized without further clearance. Dimensional errors, discrepancies, or suggestions for modification or addition of details should be brought to the attention of the Chief, Environmental Systems Division, AAF-500, Airway Facilities Service.

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9. <u>CORRECTIONS TO STANDARD</u>. Corrections to the standard may be made by the Director, Airway Facilities Service, without further regional or **inter**-service coordination. These may include misspellings, corrections of dimensional errors, and modification, addition, or deletion of minor details.

10. DISTRIBUTION OF DRAWINGS. One reproducible copy of each drawing is being forwarded to each region (except AEU), Attention: Chief; Airway Facilities Division; FAA Technical Center; and two copies of each drawing to the Aeronautical Center, Attention: Chief, FAA Depot. Additional copies may be obtained from the Airway Facilities Service, Attention: AAF-10.

GERALD L. THOMPSON

Director, Airway Facilities Service

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APPENDIX 1. VISUAL GUIDANCE LIGHTING SYSTEM STANDARD DRAWINGS

Number	<u>Date</u>	, <u>Title</u>			
D-6127-0A	8/14/79	Visual Approach Slope Indicator System, Index of Drawings			
D-6127-1A	9/14/77	Visual Approach Slope Indicator System, Typical Site Layout			
D-6127-2B	8/14/79	Visual Approach Slope Indicator System, General Plans, Sections, and Foundation Details			
D-6127-3B	8/14/79	Visual Approach Slope Indicator System, Electrical Plan and Wiring Diagrams, 4-Box VASI System			
D-6127-4B	8/14/79	Visual Approach Slope Indicator System, Electrical Plans and Wiring Diagrams, 6-Box VASI System			
D-6127-5	1/19/77	Visual Approach Slope Indicator System, Wiring Diagram - Power and Control Assembly, Type FA-9458B			
D-6127-6	1/19/77	Visual Approach Slope Indicator System, Wiring Diagram - Power and Control Assembly, Type FA-9458A			
D-6127-7	8/14/79	Visual Approach Slope Indicator System, Wiring Diagram - Power and Control Assembly, Type FA-9873			
D-6127-8	8/14/79	Visual Approach Slope Indicator System, Wiring Diagram - Radio Control System			

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